Ontario Ministry of Northern Development and Mines

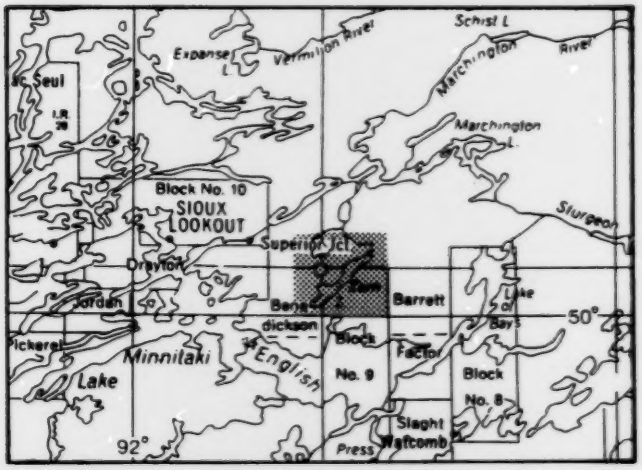
Mines and Minerals Division

ONTARIO GEOLOGICAL SURVEY

GEOLOGICAL DATA INVENTORY FOLIO 475

# ZARN LAKE AREA

Compiled by the Staff of
the Resident Geologist's Office
Sioux Lookout




LOCATION MAP Scale: 1:1 013 760 or 1 inch to 16 miles

CANADA ONTARIO Mineral Development Agreement / Entente sur le développement minéral

This project is part of the five year Canada–Ontario 1985 Mineral Development Agreement (COMDA), a subsidiary agreement to the Economic and Regional Development Agreement (ERDA) signed by the governments of Canada and Ontario.

90-00703/

NTS Number 52J/04SE

Mining Claim Map Number G-2277

This project was funded under the Canada-Ontario Mineral Development Agreement (COMDA)

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Ministry of Northern Development and Mines does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey
1989: Zarn Lake Area, Ontario Geological Survey, Geological Data Inventory Folio 475, compiled by the staff of the Resident Geologist's Office, Sioux Lookout; text and accompanying maps.

Original Compilation by: Catharine Proctor

| Date | Page(s) Revised | Revised by |
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| Date | Page(s) Revised | Revised by |
|---|---|---|
| | | |

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# CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

| CONVERSION FROM SI TO IMPERIAL | | | CONVERSION FROM IMPERIAL TO SI | | |
|---|---|---|---|---|---|
| *SI Unit* | *Multiplied by* | *Gives* | *Imperial Unit* | *Multiplied by* | *Gives* |
| | | | **LENGTH** | | |
| 1 mm | 0.039 37 | inches | 1 inch | **25.4** | mm |
| 1 cm | 0.393 70 | inches | 1 inch | **2.54** | cm |
| 1 m | 3.280 84 | feet | 1 foot | **0.304 8** | m |
| 1 m | 0.049 709 7 | chains | 1 chain | 20.116 8 | m |
| 1 km | 0.621 371 | miles (statute) | 1 mile (statute) | **1.609 344** | km |
| | | | **AREA** | | |
| 1 cm² | 0.155 0 | square inches | 1 square inch | **6.451 6** | cm² |
| 1 m² | 10.763 9 | square feet | 1 square foot | **0.092 903 04** | m² |
| 1 km² | 0.386 10 | square miles | 1 square mile | 2.589 988 | km² |
| 1 ha | 2.471 054 | acres | 1 acre | 0.404 685 6 | ha |
| | | | **VOLUME** | | |
| 1 cm³ | 0.061 02 | cubic inches | 1 cubic inch | **16.387 064** | cm³ |
| 1 m³ | 35.314 7 | cubic feet | 1 cubic foot | 0.028 316 85 | m³ |
| 1 m³ | 1.308 0 | cubic yards | 1 cubic yard | 0.764 555 | m³ |
| | | | **CAPACITY** | | |
| 1 L | 1.759 755 | pints | 1 pint | 0.568 261 | L |
| 1 L | 0.879 877 | quarts | 1 quart | 1.136 522 | L |
| 1 L | 0.219 969 | gallons | 1 gallon | **4.546 090** | L |
| | | | **MASS** | | |
| 1 g | 0.035 273 96 | ounces (avdp) | 1 ounce (avdp) | 28.349 523 | g |
| 1 g | 0.032 150 75 | ounces (troy) | 1 ounce (troy) | **31.103 476 8** | g |
| 1 kg | 2.204 62 | pounds (avdp) | 1 pound (avdp) | **0.453 592 37** | kg |
| 1 kg | 0.001 102 3 | tons (short) | 1 ton (short) | 907.184 74 | kg |
| 1 t | 1.102 311 | tons (short) | 1 ton (short) | **0.907 184 74** | t |
| 1 kg | 0.000 984 21 | tons (long) | 1 ton (long) | **1016.046 908 8** | kg |
| 1 t | 0.984 206 5 | tons (long) | 1 ton (long) | **1.016 046 908 8** | t |
| | | | **CONCENTRATION** | | |
| 1 g t | 0.029 166 6 | ounce (troy) ton (short) | 1 ounce (troy) ton (short) | 34.285 714 2 | g t |
| 1 g t | 0.583 333 33 | pennyweights ton (short) | 1 pennyweight ton (short) | 1.714 285 7 | g t |

**OTHER USEFUL CONVERSION FACTORS**

| | | |
|---|---|---|
| 1 ounce (troy) ton (short) | 20.0 | pennyweights ton (short) |
| 1 pennyweight ton (short) | 0.05 | ounce (troy) ton (short) |

One gram(g) per tonne is equivalent to one part per million (1 ppm)

NOTE—Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada

For further information please contact:

RESIDENT GEOLOGIST
BOX 3000
SIOUX LOOKOUT, ONTARIO
P0V 2T0
(807) 737-2037

# ABBREVIATIONS LIST

| | |
|---|---|
| A.F.R.O. | Assessment Files Research Office (Toronto) |
| Ann. Rept., (A.R.) | Annual Report |
| A.R.I.P. | Aggregate Resources Inventory Paper |
| Bull. | Bulletin |
| C.I.M.M. | Canadian Institute of Mining and Metallurgy |
| C.J.E.S. | Canadian Journal of Earth Sciences |
| C.M.J. | Canadian Mining Journal |
| Econ. Geol. | Economic Geology |
| E.M.R. | Department of Energy, Mines and Resources |
| E.P.B. | Earth Physics Branch |
| G.A.C. | Geological Association of Canada |
| GC | Geological Circular |
| GDIF | Geological Data Inventory Folio |
| Geol. | Geology |
| Geol. Soc. Amer. Bull | Geological Society of America Bulletin |
| GR | Geoscience (Geological) Report |
| GSC | Geological Survey of Canada |
| I.L.S.G. | Institute on Lake Superior Geology |
| IMR | Industrial Mineral Report |
| I.O.C. | Report of the Iron Ore Committee (1923) |
| Jour. (or J) | Journal |
| MDC | Mineral Deposit Circular |
| M.D.I. (R) | Mineral Deposit Inventory (Record) |
| Mem | Memoir |
| MNDM | Ministry of Northern Development and Mines |
| MNR | Ministry of Natural Resources |
| M.P. | Miscellaneous Paper |
| MRC | Mineral Resources Circular |
| N.M.I. | National Mineral Inventory |
| NOEGTS | Northern Ontario Engineering Geology Terrain Study |
| NTS | National Topographic System |
| O.B.M. | Ontario Bureau of Mines |
| O.D.L.F. | Ontario Department of Lands and Forests |
| ODM | Ontario Department of Mines |
| ODMNA | Ontario Department of Mines and Northern Affairs |
| OFR | Open File Report |
| O.G.S. | Ontario Geological Survey |
| P.R. | Preliminary Report |
| Prelim. (or P) | Preliminary |
| R.C. | Royal Commission on Mineral Resources of Ontario (1890) |
| S.M.D.R. | Source Mineral Deposit Record |
| Sum. Rept. | Summary Report |

# DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

| | SOURCES OF DATA | Data | Initial |
|---|---|---|---|
| 1 | Resident Geologist's Office Files | YES | CJP |
| 2 | Assessment Files Research Office, Toronto | AFRO | CJP |
| 3 | ODM General Index, 9 Volumes | YES | CJP |
| 4 | Catalogue of Airborne Geophysical Surveys (ODM) | NO | CJP |
| 5 | ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars | NO | CJP |
| 6 | ODM Industrial Mineral Reports | NO | CJP |
| 7 | Bibliography of Post Precambrian Thesis - Karrow (ODM MP 1) | NO | CJP |
| 8 | Bibliography of Precambrian Theses - Ginn (ODM MP 2) | NO | CJP |
| 9. | Newspaper Clippings File | YES | CJP |
| 10 | GSC Index to Publications | YES | CJP |
| 11 | OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77 | YES | CJP |
| 12 | OGS Index Maps | YES | CJP |
| 13 | Source Mineral Deposit Records (O G S) | YES | CJP |
| 14 | Author - Subject Articles File | NO | CJP |
| 15 | Miscellaneous Papers ODM & OGS | YES | CJP |
| 16 | ODM Geological Circulars OGS Study Series | NO | CJP |
| 17 | ODM Preliminary Reports ODM Bulletins | YES | CJP |
| 18 | ODM - OGS Open File Reports | YES | CJP |
| 19 | OGS Northern Ontario Engineering Geology Terrain Studies | NO | CJP |
| 20 | OGS Aggregate Resources Inventory Papers | NO | CJP |
| 21 | OGS Mineral Potential Maps | YES | CJP |
| 22 | Drill Core Library Catalogue | YES | CJP |
| 23 | UNPUBLISHED THESES | NO | CJP |
| 24 | AERIAL PHOTOGRAPHS | YES | CJP |

# METALS AND MINERALS REFERENCES LIST

- △ anh ..... Anhydrite
- △ ank ..... Ankerite
- △ anna ..... Annabergite
- △ ap ..... Apatite
- △ arg ..... Argentite
- △ As ..... Arsenic
- △ asp ..... Arsenopyrite
- △ asb ..... Asbestos
- △ ba ..... Barite
- △ be ..... Beryl
- △ Bi ..... Bismuth
- △ bn ..... Bornite
- △ bran ..... Brannerite
- △ bruc ..... Brucite
- △ Cd ..... Cadmium
- △ calc ..... Calcite
- △ carb ..... Carbonate
- △ cel ..... Celestite
- △ cc ..... Chalcocite
- △ cp ..... Chalcopyrite
- △ ch ..... Chert
- △ clay ..... Clay
- △ Co ..... Cobalt
- △ cob ..... Cobaltite
- △ cb ..... Columbite
- ▲ Cu ..... Copper
- △ cor ..... Corundum
- △ dol ..... Dolomite
- △ ep ..... Epidote
- △ ery ..... Erythrite
- △ fel ..... Feldspar
- △ fl ..... Fluorite (flurospar)
- △ fu ..... Fuchsite
- △ gn ..... Galena
- △ gt ..... Garnet
- △ goe ..... Goethite
- ▲ Au ..... Gold
- △ gf ..... Graphite
- △ gl ..... Gravel
- △ gyp ..... Gypsum
- △ hem ..... Hematite
- △ il ..... Ilmenite
- △ Fe ..... Iron
- △ IF ..... Iron Formation
- △ jas ..... Jasper
- △ kaol ..... Kaolinite (kaolin)
- △ ky ..... Kyanite
- ▲ Pb ..... Lead
- △ lim ..... Limonite
- △ Li ..... Lithium
- △ mgst ..... Magnesite
- △ mag ..... Magnetite
- △ mc ..... Malachite
- △ Mn ..... Manganese
- △ mb ..... Marble
- △ mar ..... Marcasite
- △ ma ..... Marl
- △ mi ..... Mica
- △ ml ..... Millerite
- △ mo ..... Molybdenite
- △ Mo ..... Molybdenum
- △ mon ..... Monazite
- △ ne .... Nephelite (nepheline)
- △ nc ..... Niccolite
- △ Ni ..... Nickel
- △ Nb ..... Niobium
- △ Pd ..... Palladium
- ▲ peat ..... Peat
- △ pent ..... Pentlandite
- △ Pt ..... Platinum
- △ py ..... Pyrite
- △ pyl ..... Pyrochlore
- △ pyrl ..... Pyrolusite
- △ po ..... Pyrrhotite
- △ q ..... Quartz
- △ qcv .. Quartz carbonate vein
- △ ra ..... Radioactive minerals
- △ RE ..... Rare Earths
- △ sd ..... Sand
- △ sgl ..... Sand and gravel
- △ ss ..... Sandstone
- △ scap ..... Scapolite
- △ shee ..... Scheelite
- △ serp ..... Serpentine
- △ sh ..... Shale
- △ sid ..... Siderite
- △ si ..... Silica
- ▲ Ag ..... Silver
- △ sl ..... Slate
- △ sm ..... Smaltite
- △ sod ..... Sodalite
- △ spec ..... Specularite
- △ sp ..... Sphalerite
- △ spd ..... Spodumene
- △ staur ..... Staurolite
- △ stib ..... Stibnite
- △ st ..... Stone
- △ s ..... Sulphides
- △ talc ..... Talc
- △ Te ..... Tellurium
- △ td ..... Tetrahedrite
- △ th ..... Thorite
- △ Th ..... Thorium
- △ thuc ..... Thucholite
- △ ti ..... Titanite
- △ Ti ..... Titanium
- △ tour ..... Tourmaline
- △ trap ..... Trap rock
- △ W ..... Tungsten
- △ uran ..... Uraninite
- △ U ..... Uranium
- △ verm ..... Vermiculite
- △ Y ..... Yttrium
- ▲ Zn ..... Zinc
- △ zr ..... Zircon

▲ Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

ZARN LAKE

# MINERAL OCCURRENCES

| Map Ref Letter | (see Exploration Data Map) Name(s) | Mineralization | Source Mineral Deposit Record | References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports | Additional References and/or Remarks |
|---|---|---|---|---|---|
| A | ALKENORE-BUFFALO | Au Cu | 01831 | | Cu-minor occurence<br>NMI FILE 52J/4 Au5<br>OGS 1937, AR vol 46 pt 6 p.19-21<br>OGS Report 224, map 2477<br>AFRO 1980, #2.3786<br>Map 46e<br>Surface samples 0.02 to o.08 0z/ton Au<br>Uncut assays from diamond drilling 0.433oz/ton Au |
| B | ALCONA | Au Ag Pb Cu Zn | 02341 | | Ag Pb Cu Zn-minor occurences<br>OGS 1937, AR vol 46 pt 6 p.14-19<br>OGS 1981, Map P.2293<br>AFRO 1933-39, #63.3597<br>AFRO 1979, #2.3139<br>AFRO 1979, Zarn L. Area, DHR 13<br>NMI FILE, 52J/4Au2<br>Best assays No. 1 vein 0.39oz/ton Au<br>Best assays No. 2 vein 0.3loz/ton Au |
| C | PEATLAND 52J-185 | Peat | K0513 | | OGS 1985, OFR 5543 vol B, p. 131-141<br>Map 52J-Sioux Lookout Topographic map |

## MINERAL OCCURRENCES

| Map Ref. Letter | (see Exploration Data Map) Name(s) | Mineralization | Source Mineral Deposit Record | References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports | Additional References and/or Remarks |
|---|---|---|---|---|---|
| D | SPLIT LAKE | Au Cu Zn | 01824 | | OGS 1937, AR vol 46 pt 6 p.22-25<br>NMI FILE 52J/4Au4<br>AFRO 1981, #2.3786<br>Map 46e<br>Best assays 0.02-0.22 oz/ton Au<br>One core sample assayed 0.68oz/ton Au across 6 inches<br>Map P.2233-Zarn Lake<br>Cu Zn-minor occurences |

| TYPE OF WORK | | Numbers below represent the year in which the work was done; e.g., 68 for 1968 | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (see files Index Map)<br>EXPLORATION DATA<br>filed at the<br>RESIDENT GEOLOGIST'S OFFICE | | GEOLOGICAL | GEOCHEMICAL | TRENCHING, STRIPPING | DRILLING | ASSAY DATA | UNDERGROUND WORK | PROSPECTUS, NOTES, CORRESPONDENCE | AIRBORNE MAGNETOMETER | AIRBORNE ELECTROMAGNETIC | AIRBORNE RADIOMETRIC | GROUND MAGNETOMETER | GROUND ELECTROMAGNETIC | GROUND RADIOMETRIC | INDUCED POLARIZATION | SELF POTENTIAL | RESISTIVITY | | | |
| Ref No on Map | COMPANY/AUTHOR (file number) | | | | | | | | | | | | | | | | | | | |
| 1 | CONWEST EXPLORATION C.L.<br>(52J/02SE-0044) | | | | | | | | 71 | 71 | | | | | | | | | | |
| 2 | SELCO EXPLORATION C.L.<br>(52J/04SE-0010-A1) | | | | 71 | | | | | | | | | | | | | | | |
| 3 | KERR ADDISON MINES L.<br>(52J/04SE-0010-B1) | | | | 69 | 69 | | | | | | | | | | | | | | |
| 4 | YOUNG AND SPENCER<br>(52J/04SE-0010-C1) | | | | 54 | | | | | | | | | | | | | | | |
| 5 | KERR ADDISON MINES L.<br>(52J/04SE-0010-E1) | | | | 68 | 68 | | | | | | | | | | | | | | |
| 6 | KERR ADDISON MINES L.<br>(52J/04SE-0011-A1) | | | | 68 | | | | | | | | | | | | | | | |
| 7 | ORIANA DEVELOPMENT L.<br>ROSENBLAT, R.<br>(52J/04SE-0011-B1) | | | | 79 | 79 | | | | | | | | | | | | | | |
| 8 | KERR ADDISON MINES L.<br>(52J/04SE-0012) | | | | 68<br>69 | 69 | | | | | | | | | | | | | | |
| 9 | ALKENORE BUFFALO GOLD MS.<br>(52J/04SE-0013-A1) | | | | 37 | (no drill logs) | | | | | | | | | | | | | | |

| TYPE OF WORK | | Numbers below represent the year in which the work was done; e.g., 68 for 1968 | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (see files Index Map)<br>EXPLORATION DATA<br>filed at the<br>RESIDENT GEOLOGIST'S OFFICE | | GEOLOGICAL | GEOCHEMICAL | TRENCHING, STRIPPING | DRILLING | ASSAY DATA | UNDERGROUND WORK | PROSPECTUS, NOTES, CORRESPONDENCE | AIRBORNE MAGNETOMETER | AIRBORNE ELECTROMAGNETIC | AIRBORNE RADIOMETRIC | GROUND MAGNETOMETER | GROUND ELECTROMAGNETIC | GROUND RADIOMETRIC | INDUCED POLARIZATION | SELF POTENTIAL | RESISTIVITY | | | |
| Ref No on Map | COMPANY/AUTHOR (file number) | | | | | | | | | | | | | | | | | | | |
| 10 | SELCO EXPLORATION C.L.<br>(52J/04SE-0013-B1) | | | | 71 | | | | | | | | | | | | | | | |
| 11 | ALCONA MINES L.<br>ONTARIO DEPT. OF MINES<br>(52J/04SE-0014) | | 39 | | 39 | 39 | | 39 | | | | | | | | | | | | |
| 12 | ROSENBLAT, R.<br>(52J/04SE-0015-A1) | | | | | 79 | | | | | | 79 | | | | | | | | |
| 13 | SELCO EXPLORATION C.L.<br>(52J/04SE-0015-B1) | | | | | | | | | | | 71 | | | | | | | | |
| 14 | SELCO EXPLORATION C.L.<br>(52J/04SE-0015-C1) | | | | | | | | | | | 71 | 71 | | | | | | | |
| 15 | CANADIAN GOLD AND METALS<br>(52J/04SE-0016) | | | | | | | | | 81 | | | | | | | | | | |
| 16 | KURYLIW, C.J.<br>(52J/04SE-0017) | 82 | | | | | | | | | | 82 | 82 | | | | | | | |
| 17 | KURYLIW, C.J.<br>(52J/04SE-0018) | 82 | | | | | | | | | | 82 | 82 | | | | | | | |
| 18 | GOLDWINN RESOURCES L.<br>ROSENBLAT R.<br>(52J/04SE-0019) | 80 | 80 | | | | | | | | | 80 | 80 | | | | | | | |

ZARN LAKE

## TYPE OF WORK

(see files Index Map)

EXPLORATION DATA
filed at the
RESIDENT GEOLOGIST'S OFFICE

Numbers below represent the year in which the work was done; e.g., 68 for 1968

| Ref No on Map | COMPANY/AUTHOR (file number) | GEOLOGICAL | GEOCHEMICAL | TRENCHING. STRIPPING | DRILLING | ASSAY DATA | UNDERGROUND WORK | PROSPECTUS. NOTES. CORRESPONDENCE | AIRBORNE MAGNETOMETER | AIRBORNE ELECTROMAGNETIC | AIRBORNE RADIOMETRIC | GROUND MAGNETOMETER | GROUND ELECTROMAGNETIC | GROUND RADIOMETRIC | INDUCED POLARIZATION | SELF POTENTIAL | RESISTIVITY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | CONWEST EXPLORATIONS C.L. (52P/12SE-0011) | | | | | | | | 71 | 71 | | | | | | | | | | |
| 20 | GOLDWINN RESOURCES L. (52J/04SE-0020) | | | | 85 | 85 | | | | | | | | | | | | | | |
| 21 | GOLDWINN RESOURCES L. (52J/04SE-0021) | | | | 84 | | | | | | | | | | | | | | | |
| 22 | GOLDWINN RESOURCES L. (52J/04SE-0022) | | | | | 85 | | | | | | | | | | | | | | |

# DRILLHOLE SUMMARY

| Drilling Location Number on Map | (see Exploration Data Map) Company Name | Company Drillhole Number | Date Drilled complete | Bearing Azimuth degrees | Initial Dip of Hole degrees | Thickness of Overburden feet | Total Length of Hole feet | Mineralization Noted in Log | Assay Data Included for |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SELCO EXPLORATION C.L. | 271-1b | 1971 | 45 | -60 | 110.0 | 263.0 | py | |
| 2 | KERR ADDISON MINES L. | A-15 | 1969 | 180 | -45 | 59.0 | 209.0 | po,mag | Au Cu Ag |
| 3 | YOUNG AND SPENCER | 1 | 1954 | 45 | -5 | 24.1 | 200.2 | cp,mag | |
| 4 | | 2 | 1954 | 45 | -- | 51.0 | 218.0 | py | |
| 5 | | 3 | 1954 | 50 | -- | 65.0 | 232.0 | py | |
| 6 | | 4 | 1954 | 45 | -5 | 56.0 | 351.0 | py,cp | |
| 7 | | 5 | 1954 | 45 | -5 | 80.0 | 300.0 | py,po,cp | |
| 8 | | 6 | 1954 | 45 | -5 | 31.0 | 292.0 | py,cp | |
| 9 | | 7 | 1954 | 45 | -5 | 35.0 | 273.0 | py,cp | |
| 10 | | 8 | 1954 | 45 | -5 | 22.0 | 295.0 | py,cp | |
| 11 | | 9 | 1954 | 45 | -5 | 45.0 | 321.3 | py | |
| 12 | KERR ADDISON MINES L. (THOMPSON, W.M.) | A-5 | 1968 | 180 | -45 | 25.0 | 401.7 | po,cp,py,mag | Fe |
| 13 | | 1 | 1968 | 0 | -45 | 46.0 | 101.0 | po,cp | |
| 14 | ROBERT ROSENBLAT (ORIANA DEVELOPMENT) | 79-1 | 1979 | 16 | -50 | 5.0 | 150.0 | py,ga,cp | Au Ag |
| 15 | | 79-2 | 1979 | 16 | -50 | 7.0 | 150.0 | py,ga,cp | Au Ag |
| 16 | | 79-3 | 1979 | 16 | -50 | 4.0 | 150.0 | py,ga,cp | Au Ag |
| 17 | | 79-4 | 1979 | 16 | -50 | 27.0 | 150.0 | py,ga,cp | Au Ag |

● —— indicates core stored at Drill Core Library

# DRILLHOLE SUMMARY

| Drilling Location Number on Map | (see Exploration Data Map) Company Name | Company Drillhole Number | Date Drilled | Bearing Azimuth | Initial Dip of Hole | Thickness of Overburden | Total Length of Hole | Mineralization Noted in Log | Assay Data Included for |
|---|---|---|---|---|---|---|---|---|---|
| 18 | ROBERT ROSENBLAT (ORIANA DEVELOPMENT) | 79-5 | 1979 | 16 | -50 | 15.0 | 120.0 | py,ga,cp | Au Ag |
| 19 | | 79-6 | 1979 | 20 | -50 | 8.0 | 120.0 | py | Au Ag |
| 20 | | 79-7 | 1979 | 20 | -50 | 11.0 | 120.0 | py,ga,cp | Au Ag |
| 21 | | 79-8 | 1979 | 40 | -50 | 10.0 | 150.0 | py,ga | Au Ag |
| 22 | | 79-9 | 1979 | 40 | -50 | 11.5 | 150.0 | py,ga,po,cp | Au Ag |
| 23 | KERR ADDISON MINES L. | A-1 | 1968 | 180 | -45 | 116.0 | 1160.0 | po,mag,py,cp | Fe |
| 24 | | A-2 | 1968 | 180 | -45 | 16.0 | 499.5 | mag,po,cp | Fe |
| 25 | | A-3 | 1968 | 180 | -45 | 10.0 | 502.0 | po,mag | Fe |
| 26 | | A-4 | 1968 | 180 | -45 | 36.5 | 500.0 | po,mag,gf | Fe |
| 27 | | 69-I-1 | 1969 | 180 | -60 | 43.0 | 1230.0 | po,py,mag | Fe |
| 28 | | 69-I-2 | 1969 | 180 | -60 | 89.0 | 1147.5 | gf,po,mag,cp | Fe |
| 29 | | 69-I-3 | 1969 | 180 | -60 | 111.0 | 1352.2 | mag,po,gf | Fe |
| 30 | | 69-I-4 | 1969 | 180 | -45 | 41.5 | 796.5 | po,mag | Fe |
| 31 | | 69-I-5 | 1969 | 180 | -45 | 46.0 | 611.0 | mag | Fe |
| 32 | | 69-I-6 | 1969 | 180 | -45 | 52.0 | 868.0 | po | Fe |
| 33 | | 69-I-7 | 1969 | 180 | -45 | 13.0 | 796.0 | po | Fe |
| 34 | | 69-I-8 | 1969 | 180 | -45 | 66.0 | 797.0 | po,mag | Fe |

● —— indicates core stored at Drill Core Library

ZARN LAKE

# DRILLHOLE SUMMARY

| Drilling Location Number on Map | (see Exploration Data Map) Company Name | Company Drillhole Number | Date Drilled | Bearing Azimuth | Initial Dip of Hole | Thickness of Overburden | Total Length of Hole | Mineralization Noted in Log | Assay Data Included for |
|---|---|---|---|---|---|---|---|---|---|
| 35 | SELCO EXPLORATIONS | 271-2 | 1971 | 0 | -50 | 46.0 | 394.0 | py,po | |
| 36 | | 271-3 | 1971 | 180 | -50 | 13.0 | 300.0 | py | |
| 37 | ALCONA MINES L. | 6 | 1939 | -- | -50 | 16.0 | 264.0 | py | Au |
| 37 | | 7 | 1939 | 42 | -60 | 7.5 | 260.0 | py | Au |
| 37 | | 8 | 1939 | 42 | -50 | 5.0 | 253.0 | py,po | Au |
| 38 | GOLDWINN RESOURCES | 85-1 ● | 1985 | 310 | -45 | 17.0 | 229.0 | py,ep,cp,asp | Au |
| 38 | | 85-2 | 1985 | 340 | -45 | 14.0 | 299.0 | py | Au |
| 38 | | 85-3 | 1985 | 340 | -60 | 12.0 | 299.0 | py,gf,tour | Au |
| 38 | | 85-4 | 1985 | 130 | -45 | 13.0 | 249.0 | py,cp | Au |
| 38 | | 85-5 | 1985 | 130 | -60 | 12.0 | 249.0 | py,asp,cp | Au |
| 38 | | 85-6 | 1985 | 130 | -72 | 12.5 | 349.0 | py | Au |
| 38 | | 85-7 | 1985 | 160 | -45 | 13.0 | 247.0 | py | Au |
| 39 | | 84-1 | 1984 | 330 | -45 | 4.6 | 198.0 | py | |
| 39 | | 84-2 | 1984 | 330 | -45 | 47.5 | 259.0 | | |
| 40 | | 84-3 | 1984 | 330 | -45 | 9.5 | 258.0 | py | |
| 41 | ALKENORE BUFFALO GOLD M. | 12 | 1937 | (NO DIAMOND DRILL LOGS ARE AVAILABLE FOR ANY OF THESE DRILL HOLES DONE BY AKLENORE BUFFALO GOLD MINES) | | | | | |
| 41 | | 22a | 1937 | | | | | | |

● —— indicates core stored at Drill Core Library

# DRILLHOLE SUMMARY

| Drilling Location Number on Map | (see Exploration Data Map) Company Name | Company Drillhole Number | Date Drilled | Bearing Azimuth | Initial Dip of Hole | Thickness of Overburden | Total Length of Hole | Mineralization Noted in Log | Assay Data Included for |
|---|---|---|---|---|---|---|---|---|---|
| 41 | ALKENORE BUFFALO GOLD M. | 13 | 1937 | (NO DRILL LOGS AVAILABLE FOR ANY OF THESE DRILL HOLES DONE BY ALKENORE BUFFALO GOLD MINES) | | | | | |
| 41 | | 14 | 1937 | | | | | | |
| 41 | | 15 | 1937 | | | | | | |
| 41 | | 16 | 1937 | | | | | | |
| 41 | | 17 | 1937 | | | | | | |
| 41 | | 18 | 1937 | | | | | | |
| 41 | | 20 | 1937 | | | | | | |
| 42 | | 19 | 1937 | | | | | | |
| 43 | | 21 | 1937 | | | | | | |
| 43 | | 22 | 1937 | | | | | | |
| 43 | | 23 | 1937 | | | | | | |
| 44 | SPLIT LAKE GOLD MINES (REFER TO ODM VOL. XLVI, PART VI, 1937, p. 22-25) | #1-#20 | 1935/36 | -- | -- | -- | --- | fe,q,py,cp,sp | Au |

● —— indicates core stored at Drill Core Library

ZARN LAKE

J — 4

ZARN LAKE

# AIRBORNE GEOPHYSICAL SURVEY DATA

| Number on File Index Map | – by<br>– for<br>– year | Type of Survey | Flight Altitude | Flight Line Direction | Flight Line Spacing |
|---|---|---|---|---|---|
| 1 | BY: QUESTOR SURVEYS<br>FOR: CONWEST EXPLORATION C.<br>YEAR: 1971 | MAGNETOMETER AND ELECTROMAGNETIC | 400' | S pattern | 1/4 mile |
| 15 | BY: QUESTOR SURVEYS<br>FOR: CANADIAN GOLD AND METALS<br>YEAR: 1981 | ELECTROMAGNETIC | 122m | S pattern | 200m |
| 19 | BY: SEIGAL ASSOCIATES<br>FOR: CONWEST EXPLORATIONS<br>YEAR: 1971 | MAGNETOMETER AND ELECTROMAGNETIC | 170' | NW/SE | 660' |

ZARN LAKE

# GEOCHEMICAL SURVEY DATA

(see Exploration Data Map)

| Map Sample Site Reference Number | Type of Survey | Analysis For | By | Reference RESIDENT GEOLOGIST OFFICE FILES |
|---|---|---|---|---|
| 18 | ROCK | Au Ag Pb | GOLDWINN RESOURCES L. | (52J/04SE-0019) |

ZARN LAKE

# GEOCHRONOLOGY DATA - AGE DATING

| Site | Method | Material | Reference | Result |
|---|---|---|---|---|
| | (NO DATA AS OF JULY 1988) | | | |

# AERIAL PHOTOS; MOSAICS; IMAGERY

The following items are available for inspection at the Resident Geologist's office:

(a) Aerial Photographs:

| AREA | LINE | PHOTO# | YEAR | SCALE |
|---|---|---|---|---|
| ZARN LAKE | 5005 | 38-49 | 1975 | 1"=1/4 mile |
| | 5004 | 38-49 | 1975 | 1"=1/4 mile |
| | 5003 | 112-122 | 1975 | 1"=1/4 mile |
| | 5002 | 185-195 | 1975 | 1"=1/4 mile |
| | 5001 | 3-14 | 1975 | 1"=1/4 mile |

(b) Photomosaics:

(c) Satellite Imagery:

# TOPOGRAPHIC MAPS (selected)

| scale | year | name and/or number | by |
|---|---|---|---|
| 1:250,000 | 1978 | SIOUX LOOKOUT, ONTARIO | SURVEYS AND MAPPING BRANCH, DEPT. OF ENERGY,MINES AND RESOURCES |
| 1:100,000 | 1979 | MARCHINGTON LAKE | SURVEYS AND MAPPING BRANCH, MINISTRY OF NATURAL RESOURCES |

# NEWSPAPER CLIPPINGS FILE

NOTE. A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office.

| COMPANY | NEWSPAPER | DATE | PAGE |
|---|---|---|---|
| DON CAMPBELL | THE PRECAMBRIAN | JULY 1935 | P.7 |
| GOLDWINN RESOURCES | NORTHERN MINER | ___ 1984 | |
| GOLDWINN RESOURCES | GEORGE CROSS NEWS. | JAN 1984 | |
| SPLIT CONTACT LAKE SYND. | HEAD OFFICE | SEPT 1936 | |

ZARN LAKE

# ODM GENERAL INDEX SEARCH

Words searched: ZARN LAKE, ALCONA, HIDDEN LAKE, BOTSFORD LAKE, KIRK LAKE, WALTON LAKE, SPLIT LAKE, CLAMSHELL LAKE, ENIRA LAKE, ALKENORE-BUFFALO GOLD MINES

| Index Volume | Listing: | Report Volume | Part | Page |
|---|---|---|---|---|
| III | GEOLOGY OF THE SUPERIOR JUNCTION- STURGEON LAKE AREA | XLVI | VI | 1-25 |
| III | GEOLOGY OF THE SIOUX LOOKOUT AREA | XLI | VI | 1-33 |
| III | STATISTICAL REVIEW | XLVI | I | 43 |
| III | MINES OF ONTARIO 1937 | XLVII | I | 83,84, 206,207 |

# SELECTED REFERENCES

| Author | Date | Title | Reference | Map Scales and/or Report Pages |
|---|---|---|---|---|
| O.D.M. | 1931 | SIOUX LOOKOUT AREA, MAP 41h DISTRICT OF KENORA ACCOMPANIES REPORT BY M.E. HURST | MAP 41h | 1"=11/2 mile 1:95,040 |
| O.D.M. | 1937 | SUPERIOR JUNCTION-STURGEON LAKE AREA, DISTRICT OF KENORA, ACCOMPANIES REPORT BY H.C. HORWOOD | MAP 46d | 1"=2 miles 1:126,720 |
| O.D.M. | 1937 | ALCONA-SPLIT LAKE AREA, DISTRICT OF KENORA, ACCOMPANIES REPORT BY H.C. HORWOOD | MAP 46e | 1"=3/4 mile 1:47,520 |
| O.D.M. | 1968 | SIOUX LOOKOUT-ARMSTRONG SHEET, GEOLOGICAL COMPILATION SERIES, KENORA AND THUNDER BAY DISTRICTS | MAP 2169 | 1"=4 miles 1:253,440 |
| O.D.M. | 1970 | ONTARIO GEOLOGICAL MAP, WEST CENTRAL SHEET | MAP 2199 | 1"=16 miles |
| O.G.S. | 1979 | SIOUX LOOKOUT-ARMSTRONG GEOLOGICAL COMPILATION SERIES, KENORA AND THUNDER BAY DISTRICTS | MAP 2442 | 1"=4 miles 1:253,440 |
| O.D.M. | 1966 | MINNITAKI-STURGEON LAKES SHEET, PRELIMINARY GEOLOGICAL MAP P.353, DISTRICTS OF KENORA AND THUNDER BAY | P.353 | 1"=2 miles |
| ROBERTSON, JAMES A VOS, M.A. SPRINGER, JANET S | 1976 | MINERAL POTENTIAL MAP OF ONTARIO 1976, WEST CENTRAL SHEET, ODM, P.1098, MINERAL DEPOSITS SERIES | P.1098 | 1"=16 miles 1:1,013,760 |
| GORDON, J.B. | 1977 | GOLD DEPOSITS OF ONTARIO, WEST CENTRAL SHEET, DISTRICTS OF KENORA (PATRICIA PORTION) OGS PRELIMINARY MAP P.1227, MINERAL DEPOSITS SERIES | P.1227 | 1"=16 miles 1:1,013760 |
| SPRINGER, JANET | 1978 | ONTARIO MINERAL POTENTIAL, SIOUX LOOKOUT SHEET DISTRICTS OF KENORA AND THUNDER BAY, OGS PRELIMINARY MAP P.1537, MINERAL DEPOSIT SERIES | P.1537 | 1:250,000 |

# SELECTED REFERENCES

| Author | Date | Title | Reference | Map Scales and/or Report Pages |
|---|---|---|---|---|
| PAGE, R.O.<br>MOLLER, E.B. | 1979 | ZARN LAKE AREA (NORTHERN PART), DISTRICT OF KENORA, OGS PRELIMINARY MAP P.2232, GEOLOGICAL SERIES | P.2232 | 1"=1/4 mile<br>1:15840 |
| PAGE, R.O.<br>MOLLER, E.B. | 1979 | ZARN LAKE AREA (SOUTHERN PART), DISTRICT OF KENORA, OGS PRELIMINARY MAP P.2233, GEOLOGICAL SERIES | P.2233 | 1"=1/4 mile<br>1:15,840 |
| BREAKS, F.W.<br>BOND, W.D.<br>STONE, D | 1981 | PRECAMBRIAN GEOLOGY OF ENGLISH RIVER-MARCHINGTON LAKE AREA, KENORA DISTRICT (PATRICIA PORTION), OGS PRELIMINARY MAP P.2293, GEOLOGICAL SERIES | P.2293 | 1"=1 mile<br>1:63,360 |
| TROWELL, N.F.<br>BARTLETT, J.R.<br>SUTCLIFFE, R.H. | 1980 | FLYING LOON LAKE AREA, LOGGERS LAKE SHEET, DISTRICT OF KENORA, OGS PRELIMINARY MAP P. 2351, GEOLOGICAL SERIES | P.2351 | 1"=1/4 mile<br>1:15,840 |
| O.D.M. | 1961 | GEOPHYSICS PAPER 1138, SIOUX LOOKOUT, ONTARIO 52J/4 AEROMAGNETIC SERIES | GEOPHYSICS PAPER 1138G | 1"=1 mile<br>1:63,360 |
| O.G.S. | 1982 | AIRBORNE ELECTROMAGNETIC AND TOTAL INTENSITY MAGNETIC SURVEY, SIOUX LOOKOUT AREA, DISTRICT OF KENORA, GEOPHYSICAL/GEOCHEMICAL SERIES, MAP 80558 and 80559 | MAP 80558<br>80559 | 1:20,000 |
| O.D.M.-G.S.C. | 1976 | AIRBORNE GAMMA-RAY SPECTROMETRY SURVEY, POTASSIUM % CONTOURS, SIOUX LOOKOUT SHEET, DISTRICTS OF KENORA AND THUNDER BAY, ODM PRELIMINARY MAP P. 1114-1118, GEOPHYSICAL SERIES | P.1114-1118 | 1"=4 miles<br>1:250,000 |
| CHISHOLM, E.O. | 1951 | RECENT ACTIVITIES IN THE SIOUX LOOKOUT AREA | P.R.1951-1 | |

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| Author | Date | Title | Reference | Map Scales and/or Report Pages |
|---|---|---|---|---|
| O.G.S. | 1985 | PEAT AND PEATLAND EVALUATION OF THE SIOUX LOOKOUT AREA, OPEN FILE REPORT 5543, 4 VOLUMES 275p. | O.F.R. 5543 | p. 131-141 |
| RINGROSE, SUSAN<br>MCGILLIVRAY, PETER | 1981 | AGGREGATE RESOURCES OF THE SIOUX LOOKOUT AREA, OGS OPEN FILE REPORT 5362, PART 1, 67p. | O.F.R. 5362 | |
| TROWELL, N.F.<br>BARTLETT, J.R.<br>SUTCLIFFE, R.H. | 1980 | GEOLOGY OF THE FLYING LOON LAKE AREA, DISTRICT OF KENORA, OGS OPEN FILE REPORT 5297, 97p. | O.F.R. 5297 | |
| BREAKS, F.W.<br>BOND, W.D. | 1977 | ENGLISH RIVER SUBPROVINCE (MARCHINGTON LAKE AREA) DISTRICT OF KENORA, p. 18-28 IN SUMMARY OF FIELD WORK, 1977 BY THE GEOLOGICAL BRANCH OGS, MP 75, 208p. | MP 75 | p. 18-28 |
| TROWELL, N.F.<br>BLACKBURN, C.E.<br>EDWARDS, G.<br>SUTCLIFFE, R.H. | 1977 | SAVANT LAKE-CROW LAKE SPECIAL PROJECT, p.29-50, IN SUMMARY OF FIELD WORK, 1977, BY THE GEOLOGICAL BRANCH OGS, MP 75, 208p. | MP 75 | p. 29-50 |
| PAGE, R.O. | 1978 | ZARN LAKE AREA, DISTRICT OF KENORA p.45-48 IN SUMMARY OF FIELD WORK, 1978, BY THE OGS, MP 82, 235p. | MP 82 | p. 45-48 |
| TROWELL, N.F.<br>BLACKBURN, C.E.<br>EDWARDS, G.R. | 1980 | PRELIMINARY GEOLOGICAL SYNTHESIS OF THE SAVANT LAKE-CROW LAKE METAVOLCANIC-METASEDIMENTARY BELT, NORTHWESTERN ONTARIO AND ITS BEARING UPON MINERAL EXPLORATION, OGS MP 89, 30p. | MP 89 | |
| GSC | 1939 | KENORA SHEET, ONTARIO | 266A | 1"=8 miles<br>1:506,880 |

# NOTES AND ADDENDA

91°45'

50°07'30"

Hidden Lake

Bolsford Lake

C. N. R.

Sturgeon R.

Out L.

Look L.

Walton Lake

Kirk Lake

Driol L.

Michaud L.

Split Lake

Fortymile Lake

1

3

4

5

6

8

11

12

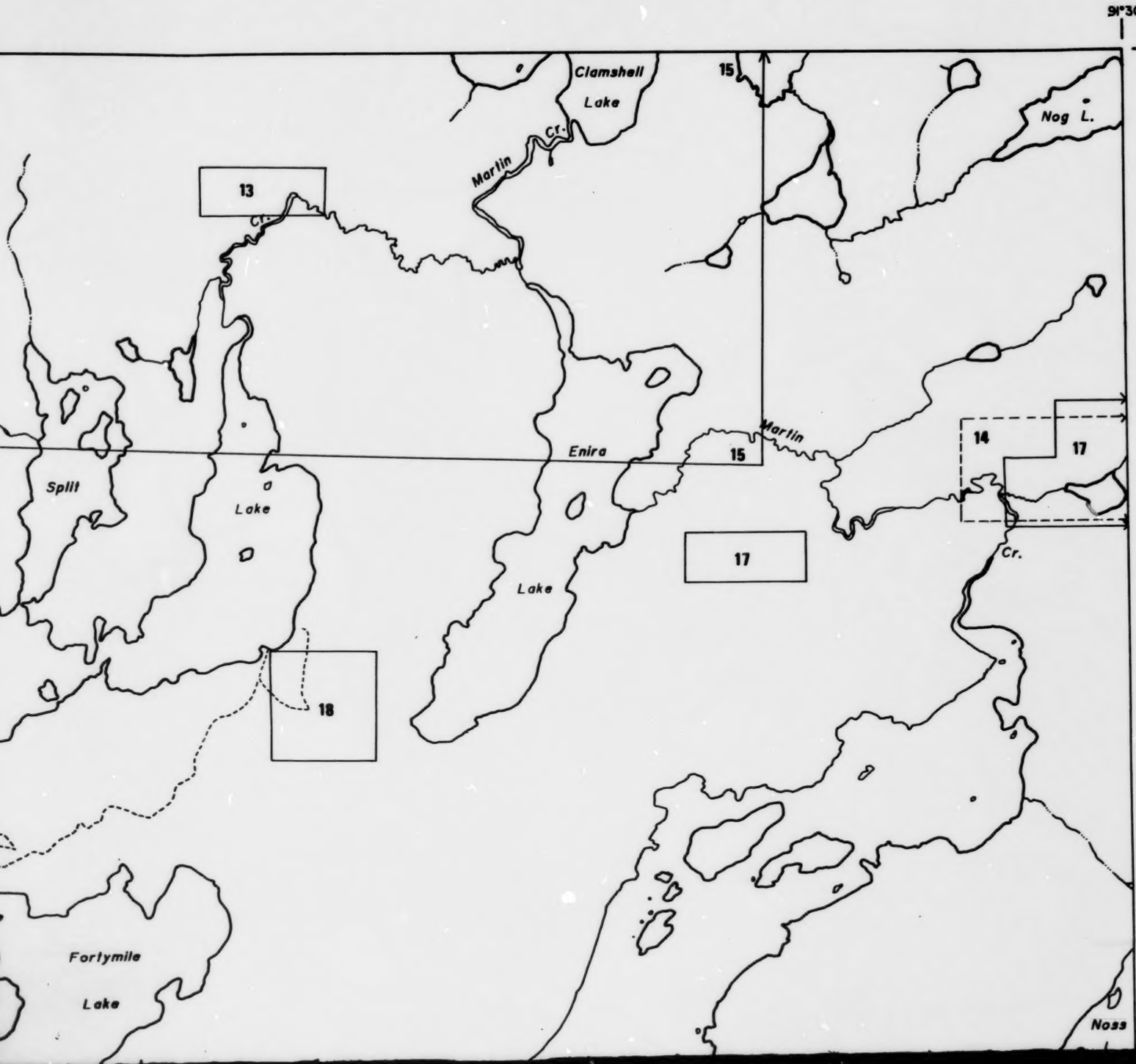
13

15

18

19

21




Ministry of Northern Development and Mines

Mines and Minerals Division

Ontario

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

GEOLOGICAL DATA INVENTORY FOLIO 475

( Map 1 of 2 )

# ZARN LAKE AREA

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

19
Lake
Drict
L.
Michaud
L.
11
18
21
Forlymile
Lake
CANADIAN
Star
L.
16
Aubrey
L.
NATIONAL
18
22
20
9
18
Forlymile
Eastern
L.
Fore
L.
Ty
L.
Lookout
L.
10
10
RAILWAYS
642
2
1
1
50°00'
91°45'
Marlin
Cr

Fortymile Lake

Noss L.

D LAKE

R.

Jorick Lake

D ZARN

Talaseeble

Bawden L.

Ralciv L.

— 50°00'

91°30'

## EXPLORATION DATA FILE AREAS

■ 1 6 Reference number is always inside work area outlined. See listing in text pages.

□ x 4 Small area of exploration

□ ★ File covers whole township or area

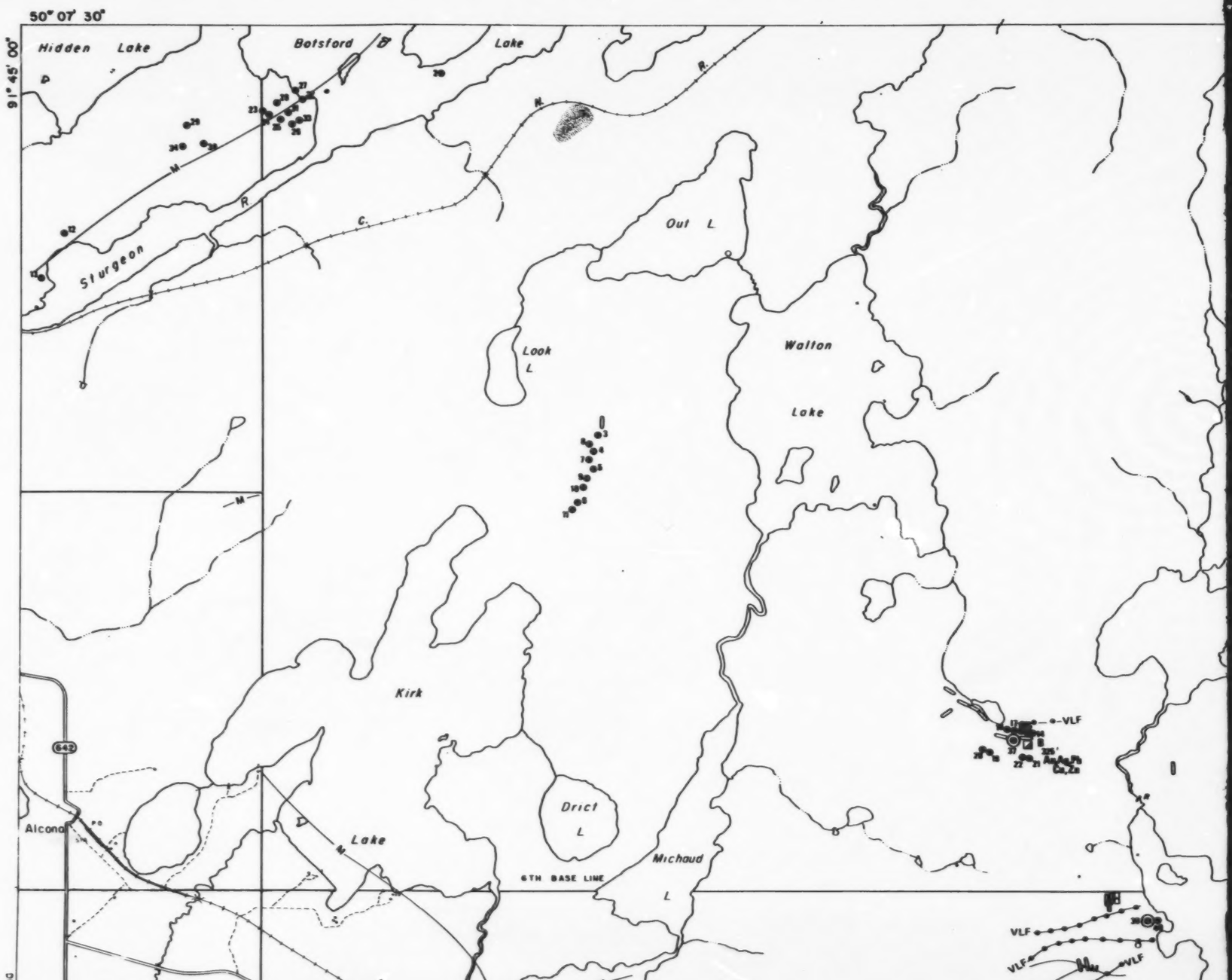
TYPES OF DATA SHOWN ON THIS MAP

## GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

- Geochemical sample site, with reference number
- Area of geochemical sampling, with reference number
- Age dating material sampling site, with reference number

## GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
- Airborne electromagnetic anomaly
  Length of anomaly along flight line
- Airborne electromagnetic anomaly
  Location of anomaly along flight line
- Airborne electromagnetic anomaly
  Conductor axis: definite, probable, possible
- ARA — Airborne radiometric anomaly
- M — Ground magnetic anomaly
- VL — Ground electromagnetic anomaly
  ( VL - Vertical loop; HL - Horizontal loop
  VLF - Very low freq.; Turam; JEM - Crone Em - 16 )
- RA — Ground radiometric anomaly



50° 07' 30"

91° 30' 00"

Clamshell Lake

Nog L.

Martin

Out L.

Walton Lake

Split Lake

Enira

Martin

Lake

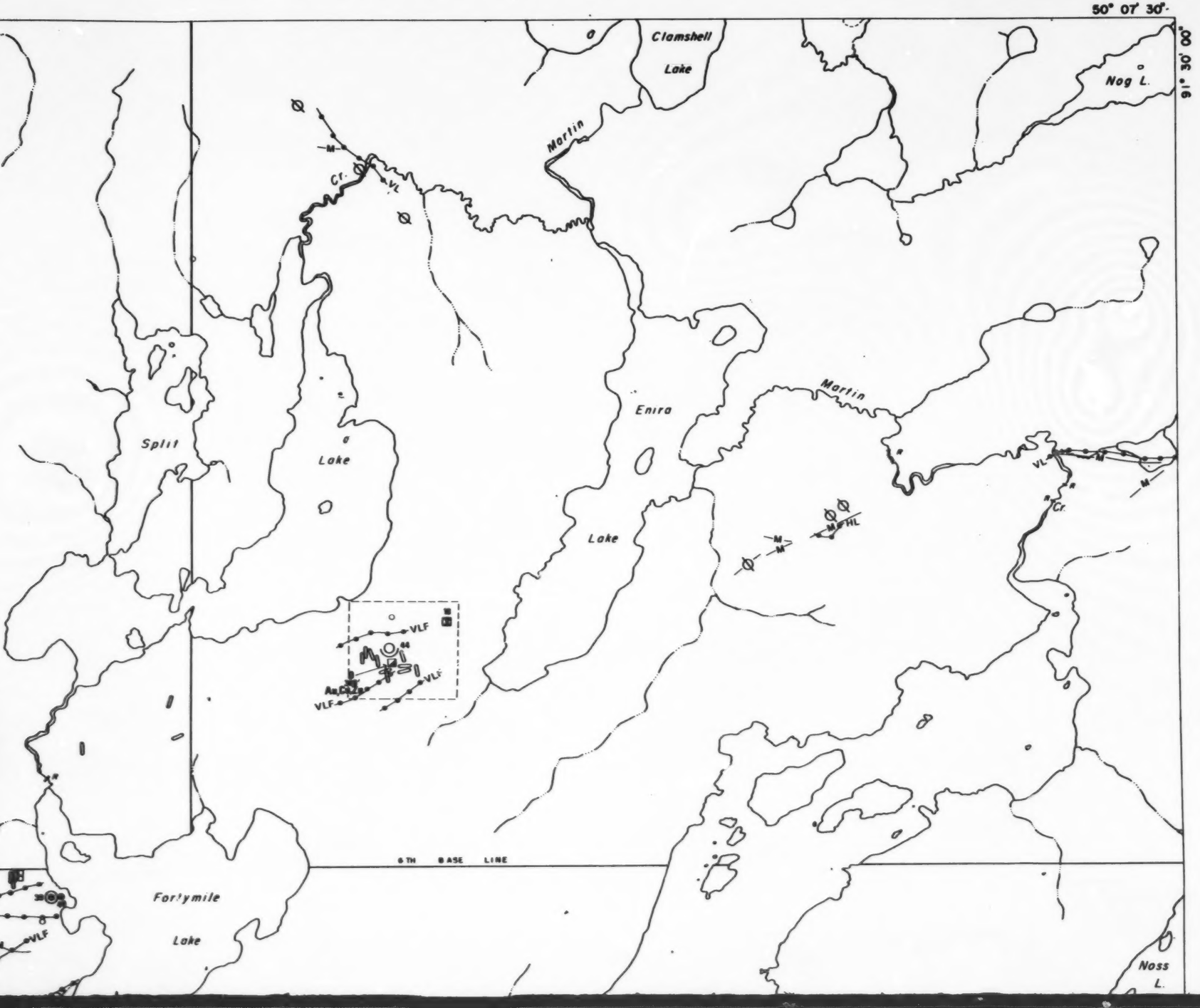
Drict L.

Michaud L.

6TH BASE LINE

Fortymile Lake

Noss




Ministry of Northern Development and Mines

Mines and Minerals Division

Ontario

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO 475

( Map 2 of 2 )

# ZARN LAKE AREA

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

## GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

### MINERAL OCCURRENCES

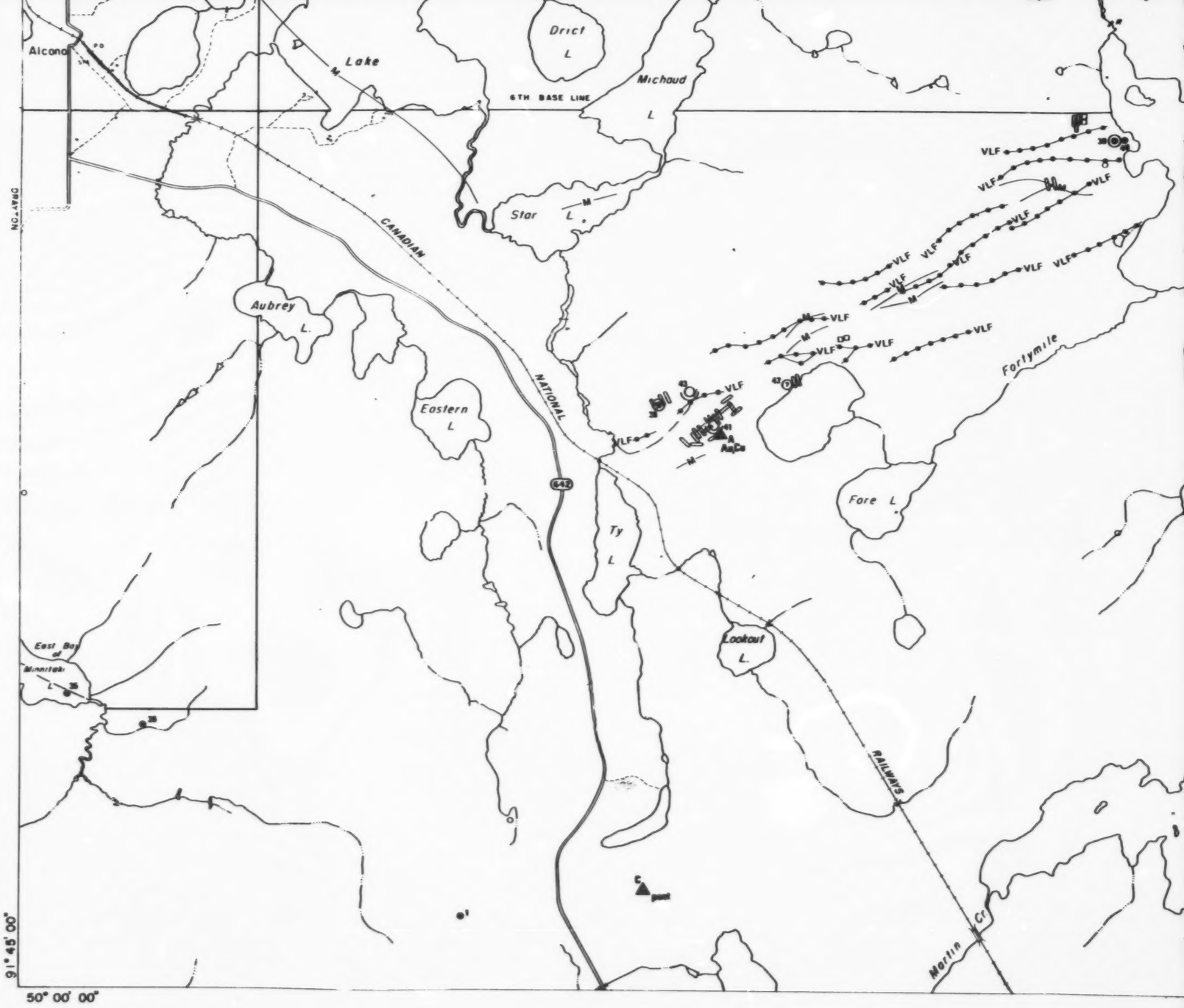
- Cp A. — Mineral occurrence at surface, with reference letter
- Au A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag A. — Mineral occurrence reported but exact location uncertain,

- ☐ ARA — Airborne radiometric anomaly
- ■ M — Ground magnetic anomaly
- ■ VL — Ground electromagnetic anomaly ( VL - Vertical loop; HL - Horizontal loop VLF - Very low freq.; Turam; JEM - Crone Em - 16 )
- ☐ RA — Ground radiometric anomaly
- ☐ IP — Induced polarization anomaly
- ☐ SP — Self potential anomaly
- ☐ AFMAG — Audio-frequency magnetic anomaly ( total intensity )
- ☐ R — Resistivity anomaly
- ☐ GR — Gravity anomaly

## MISCELLANEOUS DATA

- ■ Trenching, pit
- ☐ Adit
- ☐ Open pit
- ☐ Rock quarry
- ☐ Sand and/or gravel pit
- ☐

NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.



6TH BASE LINE

Michaud L.

Star L.

Fortymile Lake

Fortymile

Fore L.

Ty L.

Lookout L.

Marlin Cr.

RAILWAYS

NATIONAL

642

VLF

M

A

Am.Cu

6TH BASE LINE

D L A K E

Noss L.

Jorick Lake

Tota

Bowden L.

Rolciv L.

91° 30' 00"

50° 00' 00"

6TH BASE LINE

Fortymile Lake

D L A K E

Noss L.

Jorick Lake

Tolo

Bawden L.

Rolciv L.

50° 00' 00"

91° 30' 00"

## GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

### MINERAL OCCURRENCES

- ■ cp ▲ A. — Mineral occurrence at surface, with reference letter
- ■ Au ◢ A. 84' — Mineral occurrence with shaft, depth given with reference letter
- □ Ag △ A. — Mineral occurrence reported but exact location uncertain, with reference letter
- □ cp ▬ A. — Mineralized float with reference letter
- □ △ A. — Mineral occurrence in drillhole, with reference letter, and drillhole number

### DRILLHOLES

- ■ ●² — Location of single drillhole, with reference number
- ■ ◉² — Location of closely spaced group of drillholes, with reference number
- ■ (?)² — Drillhole, exact location uncertain, with reference number
- ■ ◡ — Property with underground drillholes in this general area, with reference number
- □ ○² — Property with drillholes which have not been plotted on map, with reference number
- □ ⊕² — Reverse circulation drillhole; churn drilling, with reference number